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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,166	11/03/2003	John Wallace Kline	711-010US	3625
22897	7590	12/28/2005		
DEMONT & BREYER, LLC SUITE 250 100 COMMONS WAY HOLMDEL, NJ 07733			EXAMINER WALK, SAMUEL J	
			ART UNIT 2632	PAPER NUMBER

DATE MAILED: 12/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/700,166	Applicant(s) KLINE ET AL.	
	Examiner Samuel J. Walk	Art Unit 2632	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 4, 6-7, 9-10, 20-21 and 23-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Horton (US 2004/0065247).

Regarding Claim 1, Horton discloses an unmanned underwater vehicle for tracking and homing in on submarines wherein claimed housing met by inherent housing; claimed coupling device met by corkscrew-like devices 36 and magnets 38, see para. [0027-0028]; claimed transmitter met by RF beacon 52, see para. [0032]; claimed energy storage device met by batteries 29 and claimed generator met by motor 46, see para. [0031].

Regarding Claim 4, see above rejection regarding Claim 1, specifically, magnets 38.

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Regarding Claim 6, claimed decoupling device met by detachment means (unlabeled), see para. [0035].

Regarding Claim 7, Horton further discloses detachment occurs at a speed and depth that would allow visual inspection of the tracked submarine which would inherently include when movement stopped.

Regarding Claim 9, see above rejection regarding Claim 1. In addition, Horton discloses the generator may be used to recharge the batteries.

Regarding Claim 10, it is inherent that batteries 29 include a capacitor.

Regarding Claims 20-21 and 23, see above rejection regarding Claim 1.

Regarding Claim 24, Horton further discloses that the motor becomes a generator and is powered by the water turning the propellers, see para. [0031].

Regarding Claims 25-26, see above rejection in reference to Claim 7.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 3, 5, 13, 15-16 and 18-19 rejected under 35

U.S.C. 103(a) as being unpatentable over Horton.

Regarding Claims 2-3, Horton discloses an underwater-unmanned tracking device for attachment to a tracked object. Horton does not disclose the device has the shape of a water-dwelling organism, yet alone a remora. However, one having ordinary skill in the art at the time the invention was made would have readily recognized that camouflaging the device in the manner of a water-dwelling organism, such as a remora, would make the device less conspicuous and thus more effective in tracking the object.

Regarding Claim 5, see above rejection in reference to Claims 2-3. In addition, one having ordinary skill in the art at the time the invention was made would have readily recognized that if the tracking device was indeed shaped like a remora, then the coupling device would obviously be disposed proximal to an anterior portion of the remora-shaped housing because in order to maintain the illusion of a water-dwelling organism, proper anatomic characteristics would need to be maintained such

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as attachment means at an anterior portion because that is how remoras attach themselves to other organisms in nature.

Regarding Claim 13, see above rejections in reference to Claims 1, 2-3 and 5.

Regarding Claim 15, see above rejections in reference to Claims 13 and 4.

Regarding Claim 16, see above rejections in reference to Claims 13 and 7.

Regarding Claim 18, see above rejections in reference to Claims 13 and 9.

Regarding Claim 19, see above rejections in reference to Claims 13 and 10.

5. Claims 8, 17 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horton in view of Arao (US 5831970).

Regarding Claims 8 and 22, Horton discloses sending a coded signal with stored data and position information. Horton does not disclose generating a signal using an RC circuit and converting using a transducer. However, Arao teaches of a transmission apparatus wherein RC interface units are utilized for transmission and optical transducers are used for conversion, see Col. 10 lns 12-14. Therefore, one having ordinary skill in the art at the time the invention was made

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would have incorporated the teachings of Arao into the system of Horton because it is well known in the art to use RC circuits to adjust the time constant of the circuit to adjust the desired transmission frequency and utilize transducers to convert to a desired signal.

Regarding Claim 17, see above rejections in reference to Claims 13 and 8.

6. Claims 11-12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horton in view of Carlson (US 4923057).

Regarding Claim 11, Horton discloses a generator generating power from the water moving propellers. Horton does not disclose the generator is a piezoelectric polymer. However, Carlson teaches of electrorheological fluid composite structures wherein an alternative power source for generating power is a piezoelectric polymer layer that converts mechanical energy into electrical energy, see Col. 5 lns 12-19. Therefore, one having ordinary skill in the art at the time the invention was made would have incorporated the teachings of Carlson into the system of Horton because a piezoelectric polymer power source is a readily available and functionally equivalent component which offers an alternative, complimentary, or back-up power means.

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Regarding Claim 12, Carlson further teaches the layer is flexible in order to convert the mechanical energy into electrical energy, see Col. 7 lns 27-66.

Regarding Claim 14, see above rejections in reference to Claims 13 and 11-12.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Davies (US 2005/0249036) discloses an underwater location apparatus.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel J. Walk whose telephone number is (571) 272-2960. The examiner can normally be reached on M-F: 8:00-5:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Wu can be reached on (571) 272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SJW

  
DANIEL WU  
SUPERVISORY PATENT EXAMINER

12/27/05